REMARKS/ARGUMENTS

At the outset the Applicants wish to express their appreciation to the Examiner for the helpful suggestions pertaining to formal matters in the application and for his recognition of patentable subject matter in the application.

By the present amendment the Applicants have amended the specification by cancelling the original Abstract and submitting a new Abstract in response to the Examiner's objection. The Applicants have also corrected inadvertent errors in the specification at pages 9 and 11. At page 4 of the specification, the citation for the International Journal of Electronics article by Ho et al has been completed. This citation was inadvertently left out of the specification at that time of filing even though the article itself was submitted at the time with the Information Disclosure Statement.

The Applicants have also cancelled the original claims 1 to 5 and added new claims 6 to 10, which it is believed more clearly define the invention.

Initially, it is believed that a brief description of the purpose of the invention and its accomplishment will be helpful

to the Examiner in distinguishing over the cited prior art. The purpose of the invention is to provide a device for the measurement of the shear stress that develops between the socket of an above the knee prosthesis and the skin of the residual limb of the amputee. The measurement of this shear stress is necessary so as to make a correlation to the pain experienced by the individual. As stated in the specification at page 4, lines 18 to 20, Ho et al presented an excellent report in the International Journal of Electronics concerning above-knee prosthesis sensors for measuring vertical pressures. In fact the device shown and described in the Ho et al reference is similar to the device shown and claimed in the instant application with the important exception that the device of Ho et al is adapted and used for the measurement of vertical pressures whereas the instant device is used to measure shear stress. As pointed out in the specification hereof the flange arranged at the center of the diaphragm enhances the shear stress on the sensing diaphragm for measurement purposes. The two x-shaped piezoresistors which are specifically positioned on the sensing diaphragm reduce the influence of normal or vertical pressure and thus increase measuring accuracy of shear stress. Thus it can be appreciated that the present invention goes a step beyond what is reported by Ho et al in the International Journal of Electronics.

In the Office Action the Examiner rejected original claims 1 to 4 under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,456,901, to Kurtz et al. The Examiner maintains that Kurtz et al. discloses a dielectrically isolated transducer with features of the claimed invention including a Si substrate, sensing diaphragm member with an X-shaped piezoresistor, and various layers that can serve as flange. The Applicants wish to point out to the Examiner that the sensing device disclosed in Kurtz et al is at best similar to the device disclosed in the Ho et al reference discussed above and in the instant Specification. There is no hint or suggestion in the Kurtz et al reference that a flange centrally disposed on the sensing diaphragm should or could enhance the ability of the sensing diaphragm to sense shear-stress. Nor is there a hint or suggestion in Kurtz et al that two x-shaped piezoresistors, arranged and located as described in the instant Specification, could or should be used in such a device so as to enhance the measuring accuracy of the shear-stress sensed by the sensing diaphragm. Thus, it is the Applicant's position that the cited Kurtz et al reference does not anticipate nor render obvious the instant invention.

In view of the above, it is respectfully submitted that the claims remaining in the application, claims 6 to 10, are not anticipated by the Kurtz et al reference and should therefore be

allowed. Such action is respectfully solicited.

Respectfully submitted,
YEAN-KUEN FANG BA 22772/0

By: Joseph J. Orlando
Joseph J. Orlando, Reg. No. 25,218
Attorneys for Applicant

Bucknam and Archer
1077 Northern Boulevard
Roslyn, NY 11576
(516) 365-9802

ENCL.: Abstract of the Disclosure

I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to: Commissioner of Patents, PO BOX 1450 ALEXANDRIA, VA 22313-1450
December 9, 2003

Maria Guastella